Global lysosomal storage disorders Registry program

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The registry's goal is to significantly contribute to the medical understanding of rare diseases and to help improve the quality of care for patients worldwide...

Registry definition

- The LSD Registry program is an international collaboration aiming to increase the understanding of this rare disease
- Is strictly observational and participation is voluntary.
  - No experimental procedures required
  - A recommended schedule of assessment has been developed by the Board Advisors as a guide
- Open to all physicians
  - Independent of specialty
- Disease Registry
  - Patient enrolment independent of treatment status
  - Confirmed diagnosis and patient consent
- Patient and physician confidentiality are maintained

Registry objectives

- To enhance the understanding of the variability, progression, and natural history of lysosomal storage disorders
  - This will assist in increased disease awareness
- To assist the medical community with the development of recommendations for monitoring patients and optimize patient care
  - Individualized patient reports are available for participating physicians
- To assess long-term effectiveness & safety of available treatment options, including enzyme replacement therapy
  - This long-term follow-up can be part of commitments to regulatory authorities (EMEA, FDA)

Added value for participating physicians

- Access to patient reports to monitor disease status online
- Clinical practice consensus guidelines
- Generation of peer reviewed publications
  - New insights on disease & treatment
    (data requests ; own data or aggregated data)
- Information on unrecognized manifestations of diseases

→ **End goal : optimising disease diagnosis and management**

- Genzyme supports Registry infrastructure
  - Including data management, statisticians, project managers, boards of advisors

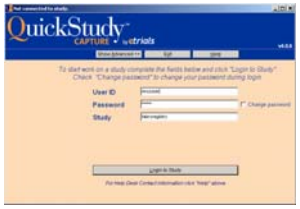
Registry Boards of Advisors

- Group of international experts
- Decides on scientific and strategic direction
- Board members actively participate in Registry
  ⇨ act as the primary regional/national contact
- Board coordinates publications from the Registry
  - Abstracts and manuscripts
  - Scientific review of publications and proposals for analyses
  - According to Publication policy
- Genzyme supports Registry infrastructure
  - Including data management, statisticians, project managers

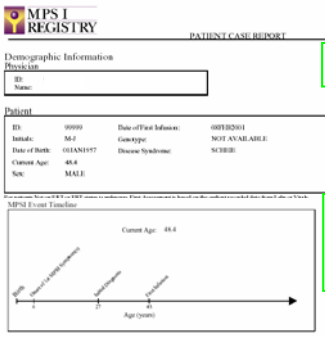
Electronic Data Capture (EDC)

Data entry via internet :

- **On any computer with access to internet**
- **Encrypted data sending to ensure confidentiality**
- **No paper CRF forms anymore**
- **Fast & efficient enrolment**
- **Access to on-line reports**



Registry output : Exemple of Patient Case Report (PCR)



PCR for tracking clinical parameters

Access by physician via Registry website in secure, password protected folders

Monthly updates

Registry output : Data requests

Data Request Form

- Data request can be submitted by ALL physicians
- Data request to be submitted by form to Registry
  - **Range of data as captured in Registry database**
- Timelines for completion will vary with nature of request
  - **Straightforward data listing vs. complicated analysis proposal**
- Publication of results in line with Registry Publication Policy

Summary

Registries provides:

Services to physicians

- Data entry by EDC
- Data Requests to support your publication
- Patient Case Reports to support disease management

- **Report range from individual to population wide**
- **Increased insight disease**
  - Variability, progression and natural course of disease
  - Long-term effectiveness of treatment
- **Patient diagnosing & monitoring guidelines**

LSD Registry Program / Start dates

1991 → GAUCHER REGISTRY

2001 → FABRY REGISTRY

2003 → MPS I REGISTRY

2004 → POMPE REGISTRY

LSD Registry Program

	Number of included patients		
	Worldwide	Europe	France
GAUCHER REGISTRY	4.501	1.787 (40%)	77
FABRY REGISTRY	2,177	961 (44%)	149
MPS I REGISTRY	544	276 (51%)	43
POMPE REGISTRY	240	174 (73%)	0

POMPE REGISTRY

Overview of the Pompe Registry

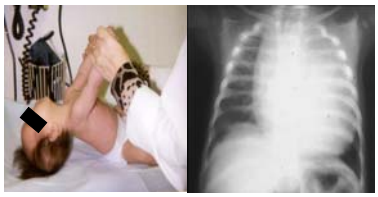
Infantile Onset Pompe Disease

POMPE REGISTRY

A Lysosomal Storage Disorder
(acid-alpha-glucosidase deficiency)

▼

Glycogen accumulation in muscle cells



Progressive muscle weakness/hypotonia
Progressive cardiomyopathy → Respiratory and Heart Failure
Death usually in 1st year of life

ERT Trials in Infantile-Onset Pompe Disease

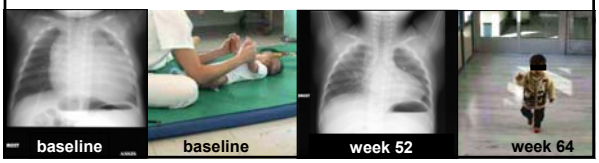
POMPE REGISTRY

- AGLU-017O2: 21 patients enrolled
- AGLU-01602: 18 patients enrolled

} **Myozyme®**

Lyon → 9 patients
Patient 02.03.308

▼



Treatment for Pompe disease: commentary

POMPE REGISTRY

- April 2006: Myozyme® commercially approved in both Europe and U.S.A.
- The first results with Myozyme® are really promising
- This is the first effective treatment for an inherited muscle disorder
- Additional data are needed to establish the extend of long-term benefits with more distance
- It is now crucial to increase awareness and early diagnosis of the disease
- Patients should be treated at the earliest age possible

Topics

POMPE REGISTRY

- **Achievements**
  - Global enrollment
  - Country overview
- **Preliminary data overview**

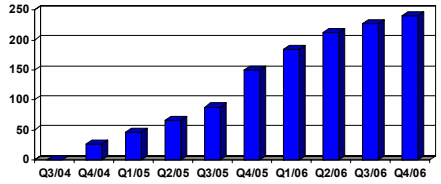
Pompe Registry objectives

- To enhance the understanding of the variability, progression, and natural history of Pompe disease
- To assist the Pompe medical community with the development of recommendations for monitoring patients and optimize patient care
- To assess long-term effectiveness & safety of available treatment options including ERT.

  protocol amemdments submitted to FDA & EMEA, containing:
  - **Quality of life questionnaires,**
  - **Enzyme replacement therapy and safety reporting section,**
  - **Sub-Registry programmes on Pregnancy Outcomes and Lactation**

www.pomperegistry.com

Achievements
Global perspective



240 patients worldwide *(as of October 4th, 2006)*

174 patients in Europe

Country Overview

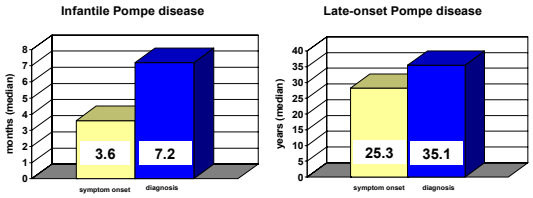
Country	Patients enrolled
Netherlands	57
Germany	51
US	31
Italy	26
Brazil	19
Poland	9
Belgium	9
UK	8
Spain	5

Country	Patients enrolled
Canada	5
Argentina	4
Portugal	4
Australia	3
Israel	3
Colombia	2
Greece	2
Philippines	1
Venezuela	1

The Pompe Registry Board of Advisors

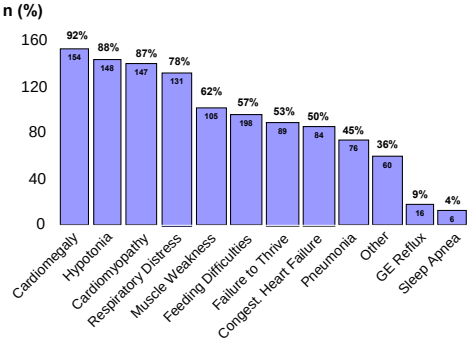
- The Pompe Registry is steered by an independent International Board of Advisors:
  - Ans van der PLOEG, Chair, NL
  - Priya KISNANI, US
  - Barry J. BYRNE, US
  - Wolfang MUELLER-FELBER, DE
  - Luciano MERLINI, IT

Preliminary data overview



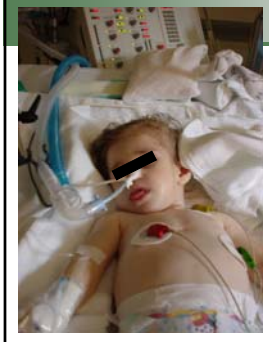
Note: the analysis was performed on 227 patients enrolled by August 2006

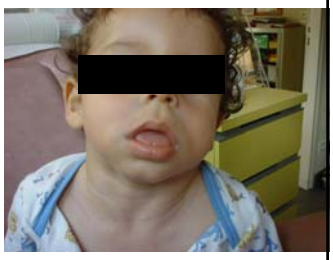
Signs and/or Symptoms Frequency



POMPE REGISTRY

Infantile Pompe Disease





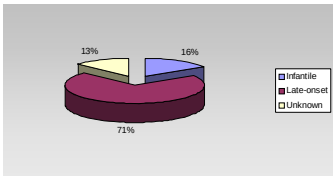
Classical

Non classical

Preliminary data overview

POMPE REGISTRY

Physician-diagnosed onset of symptomatology



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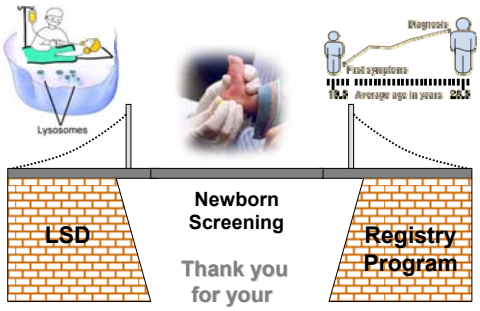
To optimize LSD management: the missing link…



LSD

Newborn Screening

Registry Program

Thank you for your attention.

Hôpital Debrousse

Lyon